

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-23 canceled

24. (New) A recovery plant that recovers a gaseous component from a process gas having a pressure of between about 2 psig and less than 20 psia, comprising:
an absorber employing a lean solvent and a semi-lean solvent that absorb the gaseous component from the process gas, thereby producing a rich solvent, a semi-rich solvent, and a lean process gas, wherein both of the lean solvent and the semi-lean solvent are produced by a regenerator;
wherein the regenerator is fluidly coupled to the absorber, wherein the regenerator receives at least part of the rich solvent and extracts the gaseous component from the rich solvent, thereby regenerating the lean solvent and the semi-lean solvent;
a solvent flow control element, fluidly coupled to the absorber, that combines at least part of the semi-rich solvent with at least part of the semi-lean solvent to form a mixed solvent;
an optional cooler fluidly coupled to the absorber, the cooler cooling the mixed solvent;
and
a connecting element that feeds the cooled mixed solvent into the absorber.
25. (New) The recovery plant of claim 24 wherein the process gas comprises a flue gas from a combustion turbine.
26. (New) The recovery plant of claim 24 wherein the process gas has a pressure of less than 20 psia when fed into the absorber.
27. (New) The recovery plant of claim 24 wherein the process gas has a pressure of less than 300 psia when fed into the absorber.
28. (New) The recovery plant of claim 24 wherein the gaseous component is carbon dioxide.

29. (New) The recovery plant of claim 28 wherein the carbon dioxide in the process gas has a concentration of greater than 10 mole %.
30. (New) The recovery plant of claim 28 wherein the carbon dioxide in the process gas has a concentration of greater than 5 mole %.
31. (New) The recovery plant of claim 28 wherein the carbon dioxide in the process gas has a concentration of greater than 2 mole %.
32. (New) The recovery plant of claim 24 wherein the solvent comprises a chemical solvent.
33. (New) The recovery plant of claim 32 wherein the chemical solvent comprises at least one of an organic amine and a mixed amine.
34. (New) The recovery plant of claim 32 wherein the chemical solvent is selected from the group consisting of monoethanolamine, diethanolamine, diglycolamine, and methyldiethanolamine.
35. (New) The recovery plant of claim 32 wherein the chemical solvent is monoethanolamine.
36. (New) The recovery plant of claim 24 wherein the rich solvent is fed to the top of the regenerator in a single rich solvent stream.
37. (New) The recovery plant of claim 24 wherein the cooler reduces the temperature of the mixed solvent more than 50 °C.
38. (New) The recovery plant of claim 24 wherein the cooler reduces the temperature of the mixed solvent more than 10°C.